

Optimum EFX Shred Signal: ZinjaBurn-Based Fat Burner

written by Mike Roberto | May 13, 2022

Optimum EFX's new stimulant-free fat burner, Shred Signal, is an impressive thermogenic weight loss aid that's the first to use NNB Nutrition's ZinjaBurn!

When it comes to stimulant-free fat burners, there's been no combination more potent than two of NNB Nutrition's *Burn Series* ingredients:

SUPPLEMENT FACTS		
Serving Size 2 Capsules - Servings Per Container 30		
Ingredients	Amount per Serving	%DV
MitoBurn (L-Aminoacylcysteine Acid)	450mg	---
CaloriBurn (Grains of Paradise Seed Extract 12.5% G. Paradisi)	80mg	---
ZinjaBurn (Dehydrozingerone)	450mg	---
BiPerinell (Black Pepper Fruit Extract)	5mg	---

*Daily Value (DV) not established.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

OPTIMUM EFX
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SHRED SIGNAL
FORMULATED TO:
Increase Metabolic Rate
Amplify The Body's Energy
Improve Body Composition
Activate Thermogenic Brown Adipose Tissue
60 Capsules
Dietary Supplement

OPTIMUM EFX SHRED SIGNAL
INTRODUCING ZINJABURN!
PRICEPLOW ARTICLE

Optimum EFX Shred Signal is a stimulant-free thermogenic fat burner that brings to us the first use of ZinjaBurn (dehydrozingerone) from NNB Nutrition!

1. MitoBurn (*L-BAIBA*)
2. CaloriBurn GP (*Grains of Paradise Extract*)

With their latest formulation, a company named *Optimum EFX* decided to take this potent combination a step further:

Shred Signal: Ignite the metabolic signal more with *ZinjaBurn*

Optimum EFX Shred Signal not only has the powerful MitoBurn / CaloriBurn combination, they're also the first supplement company to include *ZinjaBurn*, NNB Nutrition's *dehydrozingerone* ingredient. This compound is a chemical cousin to curcumin, and is found in ginger. Below, we dig into the formula, focusing on the trio of *Burn Series* ingredients:

Optimum EFX Shred Signal – Deals and Price Drop Alerts

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• MitoBurn (L-β-aminoisobutyric Acid) – 450mg

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CaloriBurn® (Grains of Paradise Seed Extract 12.5% 6-Paradol)	80mg	**
ZinjaBurn® (Dehydrozingerone)	450mg	**
BioPerine® (Black Pepper Fruit Extract)	5mg	**

**Daily Value (DV) not established.

Other ingredients: Gelatin Capsule, Magnesium Stearate, Silicone Dioxide, White Rice Flour
MitoBurn®, Calorieburn®, and ZinjaBurn® are registered trademarks of NNB Nutrition
BioPerine® is registered trademark of Sabinsa Corporation

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Scottsdale, AZ 85258

Introducing the world's first ZinjaBurn based supplement!

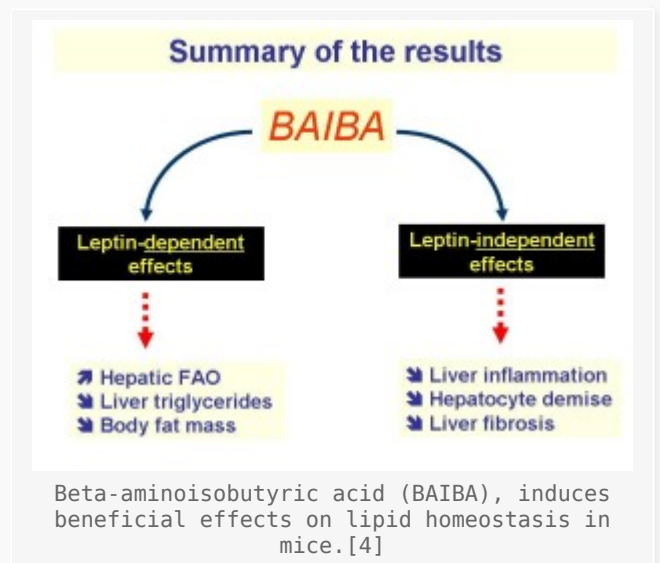
MitoBurn L-BAIBA is a *myokine*, a hormone-like, non-protein amino acid. We call myokines “muscle messengers”, which is right in line with L-BAIBA’s role in the body.

Exercise triggers the synthesis of L-BAIBA from the branched-chain amino acid, *valine*, [1] after which L-BAIBA begins signaling to muscle cells that exercise is underway. [2] Once other cells receive this signal, they initiate various

metabolic processes that help your body adapt to and recover from exercise, such as increased *fat oxidation* and *bone protection*.

So naturally, when scientists discovered how L-BAIBA and other myokines function endogenously within the body, their next question was whether we could *simulate* its exercise-based benefits in organisms by *supplementing* L-BAIBA – and the answer so far seems to be *yes*. In clinical research, L-BAIBA specifically increases the body's proportion of *brown adipose tissue* (BAT), which, as opposed to *white adipose tissue* (WAT), is more metabolically active [3] and burns more calories (primarily as heat).

The full list of L-BAIBA's benefits runs like this:



- Faster fat burning[1,3-6]
- Higher *ketone* blood levels[7]
- Conversion of WAT to BAT[3,6]
- Higher *insulin sensitivity* and lower blood sugar[1,4,8]
- Decreased levels of systemic inflammation[6]
- Better blood lipids[1,4]
- Higher bone density[9]
- Protects the kidneys[10]

How L-BAIBA works

L-BAIBA upregulates two core metabolic pathways: *PGC-1 alpha* and *PPAR alpha*. [3,11] *PGC-1 alpha* increases the mitochondrial density of cells, [12] leading to greater energy production and ultimately, more calories burned. On the other hand, *PPAR alpha* actually feeds BAT to your mitochondria, burning it off as energy and heat. [13]

High mitochondrial density is actually what makes fat tissue look brown

instead of white, so this is where the name “brown adipose tissue” comes from.[14]

What’s special about MitoBurn?

PricePlow Blog Post

NNB

MITO BURN

L-BAIBA
("The Exercise Molecule")
Igniting the Metabolic Fire Within™

NNB Nutrition's
MitoBurn (L-BAIBA)
The Exercise Molecule?

MitoBurn (L-BAIBA) has flipped the fat burner niche on its head by supplying more of this exercise-based signaling molecule to dieters

Although many supplement manufacturers have tried to use BAIBA over the years, there are numerous difficulties in properly sourcing this compound. The first is that only the *L-isomer* of BAIBA is metabolically active – as mentioned above, the L-BAIBA created within the body comes from *valine*, whereas the isomers *D-BAIBA* or *R-BAIBA* come from *thymine*. [1,5] The latter two are *not* metabolically active.

NNB Nutrition fixed the issue by developing *MitoBurn*, a pure and standardized form of L-BAIBA, which is the isomer we prefer to supplement in products like Shred Signal. Ever since **MitoBurn** hit the market in 2020, it’s had an industry reputation as a premier weight loss ingredient – *especially* when coupled with the ingredients Optimum EFX used below.

There’s a lot more to BAIBA, so if you’re interested in reading more, check out our previous blog post *BAIBA: Weight Loss Ingredient Generates Exercise in a Pill?!*

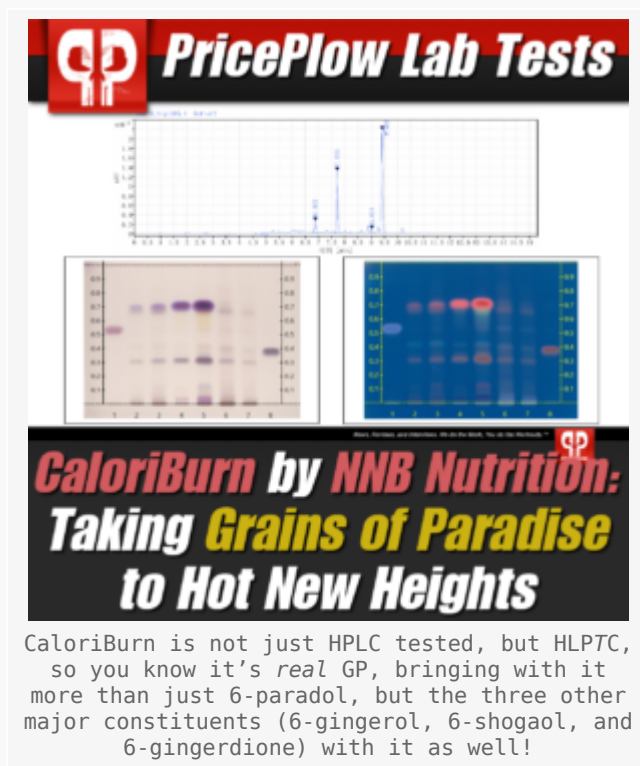
One thing to note about Shred Signal from OptimumEFX is that they’re using *big doses* of most ingredients – including MitoBurn. We typically see doses of MitoBurn in the *200 to 300 milligram range*, but in Shred Signal, there’s more than *400 milligrams*.

- **CaloriBurn GP (grains of paradise extract) – 80 mg**

CaloriBurn is an extract of *Aframomum melegueta*, or “grains of paradise“, a plant native to West Africa that contains the antioxidant *6-paradol*.

Grains of paradise extracts are usually standardized for 6-paradol, and CaloriBurn is no exception. The power of this antioxidant is that, when taken orally, it converts *white adipose tissue* (WAT) to *brown adipose tissue* (BAT).

More WAT vs. BAT discussion

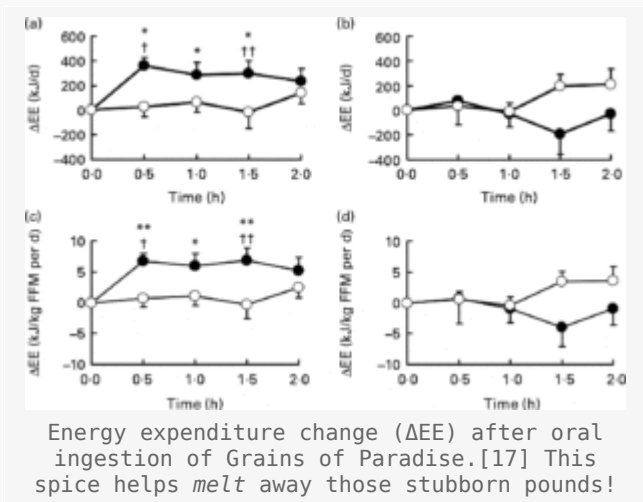


As we discussed in the MitoBurn section above (be sure to scroll up and read that if you skipped it), WAT and BAT have very different metabolic functions. White adipose tissue is used by mammalian bodies to store energy for the *long-term*, which can be used during famine conditions.[15] On the other hand, BAT drives a process called *non-shivering thermogenesis* in which stored fat is burned off as *heat*,[15] typically to maintain body temperature in the face of cold temperatures.

So, the higher the proportion of BAT you have in your adipose tissue, the more calories you'll burn daily.[16,17]

One thing we *didn't* mention about brown adipose tissue in the previous section is that it doesn't *only* use fat for fuel: it can use *glucose* for thermogenesis as well.[18] The ability of BAT to burn off glucose is one reason why people with more BAT tend to have better blood sugar control and insulin sensitivity than people who have less.[1,4,8]

The grains of paradise extract research: 40 and 30 milligrams per day



In one study, researchers gave 40 milligrams of a grains of paradise (GP) extract daily to 19 healthy adult men, 32 years or younger. They found that the GP volunteers had a faster metabolic rate and higher BAT activity just *half an hour* after consuming it compared to the placebo control group.[19] This increase in metabolic rate persisted for about two hours following ingestion.[19]

One thing to note about this study is that although the researchers didn't use CaloriBurn, they did use an extract containing the same amount of 6-paradol (12.5% by weight), and *it was only half the dose used in Shred Signal from OptimumEFX*.

A longer-term study gave non-obese women a 12.5% 6-paradol grains of paradise extract *for four weeks* and found that by the end of the study period, the extract volunteers had significantly less *visceral fat* than controls, which is definitely a good thing since visceral fat is arguably the most harmful type of fat and is linked to high cortisol and chronic inflammation.[20]

CaloriBurn GP contains 12.5% 6-paradol and the three other major constituents



Grains of Paradise is more than a spice. It contains a few key compounds that are shown in *humans* to burn fat safely and effectively!

Note that these studies used generic grains of paradise extracts, not CaloriBurn. We would expect *at least* the same, but probably *better* results, with CaloriBurn since the method of extraction used to manufacture it yields a whole-spectrum extract with *all* bioactive constituents of the plant (including *6-gingerol*, *6-shogaol*, and *6-gingerdione*), not just 6-paradol, as shown in our lab tests on our main *CaloriBurn* article's page.

This high dose of CaloriBurn GP is exciting, but we've definitely seen it before. Next up, we're excited to uncover an ingredient that we *haven't* seen in a fat burner until today:

- **ZinjaBurn (Dehydrozingerone) – 450 mg**

ZinjaBurn from NNB nutrition is a trademarked form of **dehydrozingerone (DHZ)**, sometimes called *feruloymethane*. A close analogue of *curcumin*, DHZ is the most powerful bioactive constituent of *turmeric* – especially when it comes to *metabolic* properties. Let's dig in more:

DHZ vs. Curcumin – DHZ is more bioavailable



People often take curcumin for its anti-inflammatory,[21,22] anti-oxidant,[21] BDNF-boosting properties – and as a *weight loss aid as well*.[23,24] However, the oral bioavailability of DHZ is *far* superior to that of curcumin.[25-27]

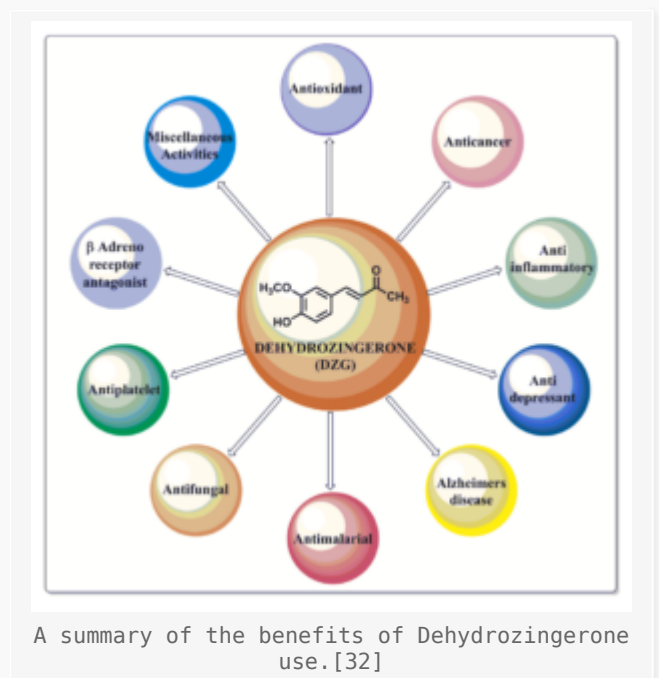
Researchers have found that DHZ's *log P* value is much lower than curcumin's,[28,29] meaning that DHZ is more *hydrophilic* and *water-soluble* than curcumin.[30] This makes it *far* easier for your body to absorb, and goes a long way toward explaining *why* DHZ is more bioavailable than curcumin.

Given that DHZ and curcumin have very similar properties, but DHZ is more bioavailable, **consumers who are in the market for a curcumin supplement should consider trying DHZ instead**, as we would expect an equivalent dose to be *more effective* than curcumin.

How ZinjaBurn / dehydrozingerone works: AMPK stimulator

One of the most important factors in having a fast, healthy metabolism is *AMP-activated protein kinase (AMPK)* activity. Basically, AMPK determines how much energy your cells take in and burn,[31] especially in muscle, fat, liver, and pancreatic tissue.[31]

One common finding in *obese people* is that they have lower AMPK activity than those who are non-obese.[27] As a result, AMPK stimulation has been proposed as a strategy for treating obesity.



Remember our discussion of WAT vs. BAT in the previous two sections? Well, it turns out that activation of AMPK can actually *trigger thermogenesis in WAT*,[33] making it more like BAT and less of a metabolic liability.

Getting to Shred Signal, one incredible thing is that **dehydrozingerone can stimulate AMPK activity**, as shown in a 2015 animal study where Korean researchers gave DHZ to mice that were being fed an obesogenic diet (i.e, such as non-nutritious foods and sugar-sweetened beverages).[26] Compared to control animals, the mice receiving DHZ had *15% less fat gain* and better lipid

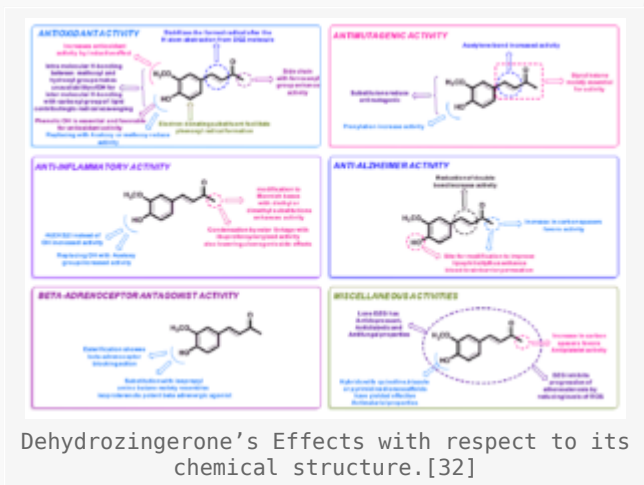
profiles, including a lower degree of fatty acid accumulation in the *liver*. The researchers attributed this to DHZ's activation of AMPK.[26]

Moreover, they found that the DHZ mice had *35% lower blood sugar levels*, and a *30% reduction* in insulin secretion.[26]

Granted, this research was conducted in *animals*, not humans. But considering that DHZ is, as we said, a close analogue of curcumin, which *has* proven capable of reducing body weight in human trials,[34] we think the superior bioavailability of NNB Nutrition's ZinjaBurn will really make it shine as a weight loss aid.

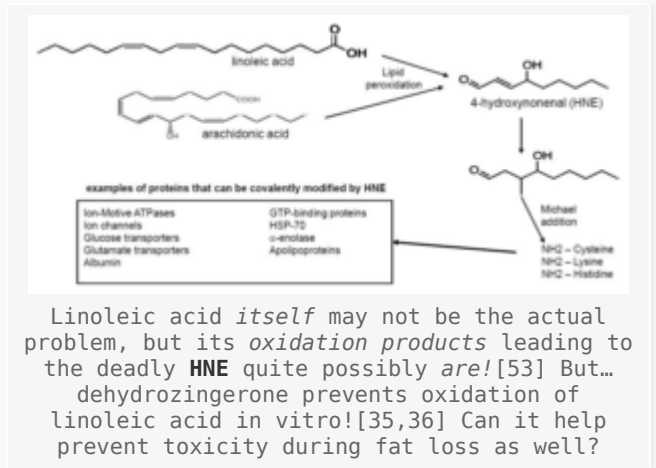
Potentially preventing linoleic oxidation

Dehydrozingerone also has another interesting effect, at least in vitro: **DHZ can prevent the oxidation of linoleic acid**. [35,36]



As many have discovered, linoleic acid is an unstable omega-6 polyunsaturated fatty acid found in obesogenic, modern industrialized seed oils (erroneously labeled as "vegetable oils") like *soybean oil, sunflower oil, canola (rapeseed) oil, safflower oil, corn oil*, and others.[37-42] Its consumption has led to overeating and disastrous health consequences,[43-50] and we're extremely confident that these linoleic acid laden oils are the number one cause of the obesity epidemic. Case in point, *human fat content has had a 136% increase in linoleic acid* over the last half century.[51]

So now when your body burns fat (it *preferentially* tries to remove polyunsaturated fatty acids first[52]), it has to deal with all the linoleic acid that's been stored from the processed food you've been eating. Sadly, linoleic acid's breakdown leads to some *extraordinarily toxic* end products, such as HNE.[53,54]



All in all, this helps explain why *modern weight loss feels so miserable* – it involves removing some *extremely* toxic chemicals from fat stores, putting them into circulation in your body.

Our *theory* is this: ingredients like ZinjaBurn may make the weight loss process more pleasant, thanks to its ability to inhibit the generation of some of those toxic components. We don't have research to back this up, but theoretically, it makes sense.

Back to what *is* known about dehydrozingerone, we suggest reading a 2016 review titled "*An appraisal on recent medicinal perspective of curcumin degradant: Dehydrozingerone (DZG)*" [32] and our primary *ZinjaBurn* and *dehydrozingerone* articles to learn more.

What's cool about this ingredient is that it's frequently explored as a "drug scaffold" – pharmaceutical companies want it, but they can't patent one of mother nature's creations for a drug. So they tinker with the molecule to find ways that they *can* safely patent it, and that's led to quite a bit of research on the potent compound itself.

- **BioPerine – 5 mg**

Now it's time to boost absorption, but Optimum EFX wisely did it with an ingredient that has some metabolic enhancement properties itself!



BioPerine is a *black pepper* extract sourced for *piperine*, a special antioxidant found in peppercorns that acts as a *bioavailability enhancer*.^[55] They act by inhibiting stomach enzymes that usually break down supplement ingredients before they can be fully absorbed into the bloodstream through the intestinal wall.

In other words, BioPerine maximizes bang for your buck. It also ensures that your body actually *uses* as much of the ingredients in Shred Signal from OptimumEFX as possible.

Some of piperine's *metabolic* properties

But besides that, piperine actually has some other effects that are useful for the purposes of fat burning: it upregulates a function called *glucose transporter 4* (GLUT4), which moves glucose out of the bloodstream and into cells where it can be burned as energy.^[33] It also helps improve insulin sensitivity and reduces fat concentrations in the *liver*,^[56] an organ where fat does *not* belong and can cause big problems if it accumulates.

Piperine also has significant antioxidant activity.^[57]

Tested to be free of banned substances

Worth noting for drug-tested athletes: Shred Signal is certified as *Informed-Sport*, meaning it's tested to ensure that it's free of WADA-banned substances!

Dosage and Directions

Shred Signal's label states to take two capsules twice daily, but at 30 servings per bottle, that would leave you with a 15 day supply.

For beginners, we'd recommend two capsules daily to assess the spice. The full four capsule daily dose can be taken for advanced users.

OUR STORY

Optimum EFX's mission is to provide top-quality, precisely formulated supplements that deliver on their claims. These formulas have been developed and optimized with hundreds of professional and elite athletes. Rest assured, all you have to do is drink it, we've done the rest.

Performance you feel. Backed by science. Trusted by pros.

SUGGESTED USE:
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FORMULATED TO:

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- Amplify The Body's Exercise Signal
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ZinjaBurn® (Dihydrozingerone)	400mg	**
BioPerine® (Black Pepper-Fruit Extract)	5mg	**

**Daily Value (DV) not established.

Other ingredients: Green Capsule, Vegetarian Stevia, Stevia Extract, Stevia Leaf, Stevia MitoBurn®, CaloriBurn®, and ZinjaBurn® are registered trademarks of NNB Nutrition. BioPerine® is a registered trademark of Sabinsa Corporation.

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SHRED SIGNAL

Shred Signal was designed to signal your body to enter fat burning mode. It activates BAT (Brown Adipose Tissue) which is a very unique type of fat cell that is both thermogenic and metabolically active, burning calories rather than storing them like typical White Adipose Tissue (WAT). Additionally, it amplifies the body's exercise signal to promote fat loss benefits associated with intense exercise.




Interestingly, just *one* capsule (half of a serving) of Shred Signal has a clinically-supported dose of grains of paradise extract, which could be used if in “poverty mode”. We suggest at least two capsules to get better doses of everything else, however.

Conclusion: ZinjaBurn is here and it's fire with Shred Signal

PricePlow Blog Post

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Dehydrozingerone



NNB
ZINJABURN™
Dehydrozingerone
Anti-inflammatory. Anti-oxidant. Fat Loss.



Dehydrozingerone:
Ginger's Anti-Inflammatory
Weight Loss Factor

Now that we've covered the incredible effects of dehydrozingerone, it's time to talk about where to get it – in Shred Signal!

Shred Signal is one of the most aptly-named fat burners we've seen in a while, and this is in a category with all kinds of wild product names. It truly contains a *metabolic signal* inside, in the form of L-BAIBA MitoBurn.

And while we love the MitoBurn + CaloriBurn combination, which synergistically amplifies the WAT to BAT conversion and then drives the BAT harder, it's really the introduction of ZinjaBurn that we're excited about.

There's a bit of research on curcumin's ability to promote weight loss, but it's never been a focus for that ingredient, and likely never will. Why? Because *dehydrozingerone* – aka **ZinjaBurn** – can do it better, and with more bioavailability!

So if you're looking for a potent thermogenic that allows you to keep your coffee, pre-workout, or energy drink, and you want something *new*, we believe Shred Signal, with its trio of *Burn* ingredients, is one to try. And if our ZinjaBurn theory's correct, it just may make dieting feel better too.

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